

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings of the claims in this application:

### LISTING OF THE CLAIMS

Claims 1-16 (Canceled)

17. (Currently amended) A method of rescuing a mammal from a lethal dose of total body irradiation, said method comprising administering isolated bone marrow stromal cells from an allogenic donor mammal to an irradiated mammal, thereby rescuing said mammal from a lethal dose of total body irradiation, wherein said isolated bone marrow stromal cells are isolated away from nonadherent cells in bone marrow, further wherein said isolated bone marrow stromal cells are administered immediately upon isolation or following *in vitro* culturing for one hour to a year and wherein donor DNA from said isolated bone marrow stromal cells is not detected in the bone marrow in the rescued mammal after administration ~~no more than the third passage, further wherein said isolated bone marrow stromal cells are short term cultured cells.~~

18. (Previously presented) The method of claim 17, wherein said mammal is selected from the group consisting of a rodent, a horse, a cow, a pig, a dog, a cat, a non-human primate, and a human.

19. (Previously presented) The method of claim 18, wherein said mammal is a human.

20. (Previously presented) The method of claim 17, wherein said administration is infusion.

21. (Currently amended) A method of enhancing hematopoiesis in a mammal, said method comprising administering isolated bone marrow stromal cells from an allogenic donor mammal to a mammal, thereby enhancing hematopoiesis in said mammal, wherein said isolated bone marrow stromal cells are isolated away from nonadherent cells in bone marrow, further wherein said isolated bone marrow stromal cells are administered immediately upon isolation or following *in vitro* culturing for one hour to a year and wherein donor DNA from said isolated bone marrow stromal cells is not detected in the bone marrow in the mammal with enhanced hematopoiesis after administration no more than the third passage, further wherein said isolated bone marrow stromal cells are short-term cultured cells.

22. (Previously presented) The method of claim 21, wherein said mammal is selected from the group consisting of a rodent, a horse, a cow, a pig, a dog, a cat, a non-human primate, and a human.

23. (Previously presented) The method of claim 22, wherein said mammal is a human.

24. (Previously presented) The method of claim 21, wherein said administration is infusion.

25. (Currently amended) A method of enhancing hematopoietic stem cell differentiation in a mammal given a lethal dose of total body irradiation, said method comprising administering isolated bone marrow stromal cells from an allogenic donor mammal to an irradiated mammal, thereby enhancing hematopoietic stem cell differentiation in said mammal, wherein said isolated bone marrow stromal cells are isolated away from nonadherent cells in bone marrow, further wherein said isolated bone marrow stromal cells are administered immediately upon isolation or following *in vitro* culturing for one hour to a year and wherein donor DNA from said isolated bone marrow stromal cells is not detected in the bone marrow in the mammal with enhanced hematopoietic stem cell differentiation after administration no more than the third

~~passage, further wherein said isolated bone marrow stromal cells are short term cultured cells.~~

26. (Previously presented) The method of claim 25, wherein said mammal is selected from the group consisting of a rodent, a horse, a cow, a pig, a dog, a cat, a non-human primate, and a human.

27. (Previously presented) The method of claim 26, wherein said mammal is a human.

28. (Previously presented) The method of claim 25, wherein said administration is infusion.

29. (Currently amended) A method of enhancing the hematopoietic recovery in a mammal given a lethal dose of total body irradiation, said method comprising administering isolated bone marrow stromal cells from an allogenic donor mammal to an irradiated mammal, thereby enhancing the hematopoietic recovery in said mammal, wherein said isolated bone marrow stromal cells are isolated away from nonadherent cells in bone marrow, further wherein said isolated bone marrow stromal cells are administered immediately upon isolation or following *in vitro* culturing for one hour to a year and wherein donor DNA from said isolated bone marrow stromal cells is not detected in the bone marrow in the mammal with enhanced hematopoietic recovery after administration~~no more than the third passage, further wherein said isolated bone marrow stromal cells are short term cultured cells.~~

30. (Currently amended) A method of treating a mammal comprising an ablated marrow, said method comprising administering isolated bone marrow stromal cells from an allogenic donor mammal to a mammal, thereby treating said mammal comprising an ablated marrow, wherein said isolated bone marrow stromal cells are isolated away from nonadherent cells in bone marrow, further wherein said isolated bone marrow stromal cells are administered immediately upon isolation or following *in vitro*

culturing up for one hour to a year and wherein donor DNA from said isolated bone marrow stromal cells is not detected in the bone marrow in the treated mammal after administration ~~no more than the third passage, further wherein said isolated bone marrow stromal cells are short term cultured cells.~~

31. (Currently amended) A method of enhancing hematopoiesis in a mammal comprising an ablated marrow, said method comprising administering isolated bone marrow stromal cells from an allogenic donor mammal to a mammal, thereby enhancing hematopoiesis in said mammal comprising an ablated marrow, wherein said isolated bone marrow stromal cells are isolated away from nonadherent cells in bone marrow, further wherein said isolated bone marrow stromal cells are administered immediately upon isolation or following *in vitro* culturing for one hour to a year and wherein donor DNA from said isolated bone marrow stromal cells is not detected in the bone marrow in the mammal with enhanced hematopoiesis after administration ~~no more than the third passage, further wherein said isolated bone marrow stromal cells are short term cultured cells.~~

32. (Currently amended) A method of increasing survival of a mammal exposed to a lethal dose of total body irradiation, said method comprising administering isolated bone marrow stromal cells from an allogenic donor mammal to an irradiated mammal, thereby increasing the survival of a mammal exposed to a lethal dose of total body irradiation, wherein said isolated bone marrow stromal cells are isolated away from nonadherent cells in bone marrow, further wherein said isolated bone marrow stromal cells are administered immediately upon isolation or following *in vitro* culturing for one hour to a year and wherein donor DNA from said isolated bone marrow stromal cells is not detected in the bone marrow in the mammal with increased survival after administration ~~no more than the third passage, further wherein said isolated bone marrow stromal cells are short term cultured cells.~~

Claims 33-48 (Canceled)